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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,490	04/20/2006	Kishor Gajanan Agnihotri	27362U	2404
20529 7590 12/22/2010 THE NATH LAW GROUP 112 South West Street Alexandria, VA 22314				
EXAMINER				
CHIANG, TIMOTHY S				
ART UNIT		PAPER NUMBER		
1761				
MAIL DATE		DELIVERY MODE		
12/22/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/576,490

Applicant(s)

AGNIHOTRI, KISHOR GAJANAN

Examiner

TIMOTHY CHIANG

Art Unit

1796

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 6-8, 10 and 12-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 6-8, 10 and 12-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Applicant's supplemental amendments to the specification, drawings, and claims are not entered on the basis of introducing new matter unsupported by the originally submitted specification. The Applicant attempts to introduce figures and specification matter deemed as new matter. The introduction of a single belt system as presented in the supplemental amendments to the specification and drawings are not supported in the original teaching of a dual-belt system. The teaching of page 4 of the originally submitted specification is understood to describe the dual belt system as presented in original figure 1, while defining the make-up of the belt material. The specification only ever refers to one such support system, which is defined as a dual-belt system throughout the specification and in figure 1. Reading otherwise would be inconsistent with the rest of the body of the specification. Subsequently, the amendments to claims are not supported either. Therefore, all outstanding rejections have been maintained. Further, in addition to the currently outstanding rejection filed 2/18/2010, the non-entered amendments to claims filed 06/18/2010 has been examined and found non-patentable for the reasons below.

Response to Amendment

1. The amendment filed 6/18/2010 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment

shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: A single belt support system as introduced by amended drawings, specification, and claims found on page 3, 4, and 6 respectively, in the response filed 6/18/2010.

Applicant is required to cancel the new matter in the reply to this Office Action.

Currently outstanding rejection filed 2/18/2010

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1 and 10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Applicant amends claims 1 and 10 with the limitation of "fabric tubular roll" and states the support for such may be found on page 8 paragraph 2 of the specification. No such support can be found for the added limitation nor the response regarding the limitations found in applicant's arguments page 6 paragraph 5.

Further, regarding newly amended independent claim 1, Applicant has invoked 35 U.S.C. 112, sixth paragraph with means plus function language to amended claims (In re Donaldson, 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1848 (Fed. Cir. 1994)). Accordingly, the examiner construes and examines the claims per rule of "functional equivalents".

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 6-8, 10 and 12-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Kosann et al. (US Pat. 5,917,118, hereinafter "Kosann") in view of Williams et al. (US Pat. 3,056,275, hereinafter "Williams").

Regarding claims 1 and 10, Applicant has invoked 35 U.S.C. 112, sixth paragraph with means plus function language. Kosann discloses an apparatus and

method for dyeing fibers or filaments (col. 1, lines 49-62) comprising a prewetting trough, a dye bath, a drying arrangement (Figure 1 and col. 3, lines 9-11), and a supporting system comprising a porous fabric belt, **means** to form a fabric roll from the said porous fabric belt **for** carrying the fibers or filaments and **means** to guide said fabric roll along with fibers and filaments through the pre-wetting trough (dual-belt conveyor system as taught by Kosann construed as a functional equivalent; Figure 3, structure 61a/b; col. 3, lines 32-37), the dye bath and the drying arrangement **for** dyeing and drying the said fibers or filaments continuously and homogeneously. Kosann teaches the dual belt conveyor system to be “perforated top and bottom allowing penetration of the dye solution and other solutions utilized in the process while holding the cotton batt together” (col. 3, lines 35-37). Though Kosann does not explicitly disclose the material of which the perforated belt is to be made of, the examiner contends the applicant’s teaching of “fabric roll”, or belt, reads on Kosann’s disclosure of “perforated belt”.

Kosann discloses the invention substantially as claimed above. However, Kosann fails to disclose the apparatus and method for dyeing fibers or filaments to be comprised of a plurality of prewetting troughs, plurality of dye baths, and that the belt conveyor system comprises of a fabric roll.

Such teaching of plurality of prewetting troughs and dye baths are well known in the art. Furthermore, Williams teaches a plurality of prewetting troughs, plurality of dye baths in an apparatus and method for dyeing fibers or filaments utilizing a support

system utilizing a dual-belt type conveyor system for the propose of continuously and homogeneously dyeing fibers or filaments.

It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have provided a plurality of prewetting troughs and a plurality of dye baths in Kosann in order to provide for continuously and homogeneously dyeing of fibers or filaments as taught by Williams.

Regarding claims 6 and 7, Kosann teaches the dual belt conveyor system to be "perforated top and bottom allowing penetration of the dye solution and other solutions utilized in the process while holding the cotton batt together" (col. 3, lines 35-37). Though Kosann does not explicitly disclose the material of which the perforated belt is to be made of, the examiner contends the applicant's teaching of "wherein the belt is a synthetic or natural fabric" or "blended fabric", reads on Kosann's disclosure of "perforated belt".

Regarding claim 8, Kosann teaches the dual belt conveyor system to be "perforated top and bottom allowing penetration of the dye solution and other solutions utilized in the process while holding the cotton batt together" (col. 3, lines 35-37). The examiner construes Kosann's disclosure of the belt material "allowing penetration of the dye solution and other solutions" as inherently meeting the claimed limitation of "inert to dyeing" in the instant claim. It would be understood by one skilled in the art that a belt allowing dye solution and other solutions to pass through would inherently require the belt material be inert to dye solution such that the belt material would not interfere or

interact with the dye solution or other solutions leading to adherence of dye to the belt material leading to clogging and the lack of penetration as disclosed.

Regarding claims 12 and 13, Kosann discloses an apparatus and method for dyeing fibers or filaments wherein cotton fibers (col. 4, line 9) or filaments are carried between porous belts.

Regarding claim 14, Kosann discloses a method for dyeing fibers or filaments wherein cotton fibers (col. 4, line 9) or filaments are carried between porous belts. The examiner construes this teaching as meeting the limitation of fibers carried in loose form.

Regarding claim 15, Kosann discloses a method for dying fibers or filaments wherein the dye is a vat dye (col. 4, line 7).

Regarding claim 16, Kosann discloses a method wherein the at least one fiber or filament is subjected to "vat dye" (col. 4, line 7). Applicant's teaching of indigo dyeing reads on Kosann's disclosure as indigo dyeing is a well known vat dye. Furthermore, Kosann discloses an "oxidizing applicator" (abstract) which lends to an inherent disclosure of indigo dyeing as indigo dye is affixed to fibers via oxidative processes.

In addition to the currently outstanding rejection filed 2/18/2010, the non-entered amendments to claims filed 06/18/2010 has been examined and found non-patentable for the reasons below.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 16 recites the limitation "the at least one fiber or filament" in claim 10.

There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. Claims 11, 6-8, 10, 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al. (US Pat. 3,056,275, hereinafter "Williams") in view of Winch (US Pat. 4,199,966, hereinafter "Winch").

Regarding claims 1 and 10, Williams teaches a method and apparatus for dyeing fibers or filaments (col. 4, lines 45-50) comprising a plurality of prewetting troughs; a plurality of dye baths; a drying arrangement; and a supporting system for dyeing fibers or filaments continuously and homogeneously, the supporting system comprising a pair of porous belts formed into a fabric roll for carrying fibers or filaments, and one or more nip rollers guiding said fabric roll along with fibers and filaments through the pre-wetting trough, the dye baths and the drying arrangement (col. 2, lines 49-64; col. 4, lines 10-13). Though Williams teaches a dual-belt system in the method of dyeing fibers or filaments by supporting fibers or filaments in a porous belt-fiber/filament roll, carrying the fibers or filaments on the porous belt-fiber/filament roll and guiding the porous belt – fiber/filament roll through pre-wetting troughs for pre-wetting the fibers or filaments, die baths for dyeing the fibers or filaments and a drying arrangement for drying the fibers or filaments; and separating the dried fibers or filaments from the roll, Williams fails to disclose that the belt-conveyor supporting system is comprised of a single-porous fabric belt. However, Williams does state that *"it is not essential to the invention that the top belt be carried through the steam chest. It may be stripped away from the material sheet immediately after passaged through the first squeeze rolls and returned over appropriate guides to the input end of the machine for recycling..."* indicating that a

single belt conveyor may be implemented during a portion of the dyeing process (col. 3, lines 38-42).

Winch teaches a method and apparatus (abstract) in the environment of dyeing (col. 10, lines 38-40) comprising a single porous belt conveyor (col. 14, lines 34-23) for transporting loose fiber or non-woven fiber batt for the purpose of avoiding compressive interaction between two conveyors against each other and against the fiber batt while conveying through the rollers (col. 15, lines 24-48). It would have been obvious to one of ordinary skill in the art at the time of invention to have provided a single belt conveyor system in Williams' method and apparatus for dyeing in order to provide for the relief of compressive interaction between two conveyors against each other and against the fiber batt while conveying through the rollers as taught by Winch as shown above. Winch further teaches the belt to be made of open porous belts fabricated at low cost from economical materials (col. 15, lines 24-27), and while Winch does not specifically state that the belt be made of fabric, such a material is construed as being met by the above disclosure, and at the very least it would have been obvious to one of ordinary skill in the art to use such a belt as to provide for an open porous belt fabricated at low cost from economical materials.

Regarding claims 6 and 7, Winch teaches the single belt conveyor system to be made of open porous belts fabricated at low cost from economical materials (col. 15, lines 24-27). Though Winch teaches the belt to be made of open porous belts fabricated at low cost from economical materials (col. 15, lines 24-27), Winch does not explicitly disclose the material of which the perforated belt is to be made of synthetic or

natural fabric" or "blended fabric"; the examiner contends the applicant's teaching of "wherein the belt is a synthetic or natural fabric" or "blended fabric", reads on Winch's disclosure of open porous belts fabricated at low cost from economical materials, and at the very least it would have been obvious to one of ordinary skill in the art to use such a belt as to provide for an open porous belt fabricated at low cost from economical materials.

Regarding claim 8, it would have been obvious to one skilled in the art at the time of invention to select from among the materials fabricated at low cost from economical materials (col. 15, lines 24-27) as taught in Winch and relied upon above, to form a belt for a supporting system inert to dyeing according to desired results.

Regarding claims 12 and 13, Williams discloses the apparatus and method for dyeing fibers or filaments as relied upon above wherein cotton fibers (col. 4, line 45) or filaments are carried through the dye process.

Regarding claim 14, Williams teaches the method above wherein the fibers are carried in loose form (col. 1, line 11).

Regarding claim 15, Williams teaches the method above wherein the dye is a vat dye (col. 6, line 18).

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al. (US Pat. 3,056,275, hereinafter "Williams") in view of Winch (US Pat. 4,199,966, hereinafter "Winch") and further in view of Kosann et al. (US Pat. 5,917,118, hereinafter "Kosann").

Regarding claim 16, Williams in view of Winch teaches the method for dyeing fibers or filaments as relied upon above. However, while Williams teaches a vat dyeing method (indigo is a well known vat dye), both Williams and Winch do not specifically teach indigo dyes.

Kosann teaches a similar vat dye method comprising the use of a belt-conveyor system. Kosann further teaches an "oxidizing applicator" (abstract) which lends to an inherent disclosure of indigo dyeing as indigo dyes are affixed to fibers via oxidative processes. Kosann teaches such and establishes indigo dyes as well known in the art and available to selection in disclosures of vat dyes.

It would have been obvious to one skilled in the art at the time of invention to have provided indigo dyes in Williams in view of Winch in order to provide a suitable vat dye as taught by Kosann.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY CHIANG whose telephone number is (571)270-7348. The examiner can normally be reached on Monday - Thursday 9:00AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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12/17/2010